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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,828	11/29/2001	Jin-gyo Seo	1293.1273	9729

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EXAMINER	
DINH, TAN X	

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 04/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/995,828	SEO, JIN-GYO	
	Examiner	Art Unit	
	TAN X. DINH	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) *30* is/are withdrawn from consideration.

5)☒ Claim(s) *29* is/are allowed.

6)☒ Claim(s) *1,3-12 and 18-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1) The amendment filed 2/10/2006 is acknowledged.

2) Applicant states that claim *30* is recited the same feature of claim *29*. As indicated in last Office action, the invention of claim 30 recites the new feature of controlling power level of two pulses of multiple pulse train relative to a peak power of a third pulse, which never been claimed before and this feature is distinct from the invention originally claimed by claims *1,3-12,18-29*. Examiner did not see how the invention of claim 30 is the same as claim 29 as applicant's argued.

3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> 4) (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5) Claims *1,3-12,18-20,24-28* are rejected under 35 U.S.C. 102(b) as being anticipated by APPLICANT's PRIOR ART (Figs.1A,1B,2,3A,3B and 7-9).

Claims *1,3-12,18-20,24-28* are rejected with the same reasons set forth in last Office action (paragraph (7) of the papers mailed on

12/08/2005).

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7) Claims *21-23* are rejected under 35 U.S.C. 103(a) as being unpatentable over APPLICANT's PRIOR ART (Figs.1A,1B,2,3A,3B and 7-9).

Claims *21-23* are rejected with the same reasons set forth in last Office action (paragraph (9) of the papers mailed on 12/08/2005).

8) Claim *29* is allowed.

9) Applicant's arguments filed 2/10/2006 have been fully considered but they are not persuasive.

First, paragraph [0025] in the specification refers to figures 3A and 3B which shows the waveforms of write pulses forming the domain of figure 2 and figure 2 is " PRIOR ART ". Therefore, paragraph

[0025] in the specification is discussed about the prior art of figures 1-3B. The invention of this instant application is based on figure 6A and 6B, which shows a waveforms of multiple pulse trains when a recording control using this instant invention. For that reason, claims 18-20 and 26 are rejectable as shown in last Office action.

Second, the features of prior art figures 1A,1B,2,3A,3B and 7-9 are anticipated the invention as claimed in claims 1 and 24, as indicated in the Office action, date 5/27/2005, the APPLICANT's PRIOR ART discloses an adaptive recording method using an optical recording medium as claimed in claim 1, comprising forming a mark using a multiple pulse train comprising a first pulse, a multi-pulse having a peak power level and a last pulse (Fig.3A, first pulse at beginning of pulse chain, multi-pulse in the middle of pulse chain and last pulse at the end of pulse chain); adapting a power level of the first pulse relative to the peak power level of the multi-pulse depending on a correlation between the mark and a previous space (Fig.3A, the changed depending on combination of previous space and current mark); adapting a power level of the last pulse relative to the peak power level of the multi-pulse depending on a correlation between the mark and a next space (Fig.3A, the changed depending on combination of current mark and next space); driving a

recording unit with the multiple pulse train having the adapted power levels (the multiple pulse train is driven by the power control as seen in figures 7-9. See also Korean Patent Abstract Publication, P 1999-002461, English abstract, figures 1 and 3). The features of claim 24 also anticipated the applicant's prior art figures 1A,1B,2,3A,3B and 7-9 since the applicant's prior art shows a method of controlling recording marks on an optical disk using pulse trains comprises first, second and third multiple pulse trains each having a first pulse, a multi-pulse having a reference power level and a last pulse (figure 3A, first pulse, a multi-pulse having a reference power level and a last pulse), providing a different reference power level to each multi-pulse train depending on the energy or density of a non-return-to-zero inverted (NRZI) signal detecting correlation between a current mark and a space between successive marks (figure 3A and 3B. See also the specification, page 6, paragraph [0025] to [0029]). It is also noted that, the features of prior art figures 3A and 3B in combination with prior art figures 7-9 provide the basic information for someone within the level of skill in the art to interpret in different ways, not direct only to the disclose in the specification as applicant's argued.

Third, the basic reasons for rejecting claims 21-26 are provided in the Office action, date 5/27/2005. as seen in figure 3B of the prior art and the specification, paragraph [0027] to [0028], the power level of multi-pulse is adjusted the peak power level P_w, which is the reference power level may be controlled depending on the density of marks and spaces. Figure 3B shows an example in which a reference power level, which is a reference write power level or a peak level is adjusted depending on energy of a non-return-to-zero inverted (NRZI) signal (a mark and a space correspond to high and low levels of an NRZI signal, the reference power level is any of peak powers 1, 2, and 3 depending on the energy of an NRZI signal). In another words, the multi-pulse reference power level can be adjusted at any suitable value as compared to first pulse and last pulse, therefore, one of ordinary skill in the art at the time of the invention was made would have been motivated to adjust the multi-pulse reference power level for greater than first pulse power level and less than last pulse power level as claimed. It is noted that, the features of prior art figures 3A and 3B in combination with prior art figures 7-9 provide the basic information for someone within the level of skill in the art to interpret the meaning and effectiveness of these figures in a reasonable ways, not direct only to the disclose in the specification as applicant's argued.

For those reason, claims 1,3-12,18-28 are still rejectable as shown above.

10) THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAN Xuan DINH whose telephone number is (571) 727-7586. The examiner can normally be reached on MONDAY to FRIDAY from 8:00AM to 5:30PM.

The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TAN DINH
PRIMARY EXAMINER
April 24, 2006